

NITC Strategic Initiative: Network Nebraska

Objective

- To develop a broadband, scalable telecommunications infrastructure that optimizes the quality of service to every public entity in the State of Nebraska.

Description

Network Nebraska aggregates disparate networks into a multipurpose core backbone extending from Norfolk, Omaha, Lincoln, Grand Island, Kearney, and North Platte to the Panhandle. The State of Nebraska, Office of the CIO, the University of Nebraska, Nebraska Educational Telecommunications Commission, Department of Education, Public Service Commission, and the Nebraska Information Technology Commission have formed the Collaborative Aggregation Partnership (CAP) to guide and implement Network Nebraska. The next phase of this initiative is to formalize business relationships and agreements and to enhance rural bandwidth through local aggregation.

The major components of this initiative include:

- Development of a scalable, reliable, and secure telecommunications infrastructure that enables any type of eligible entity (i.e., local and state government, K-12 and higher education, health care institutions) to purchase the amount of service that the entities need, when they need it, on an annual basis;
- Establishment of a catalog of value-added services that enables eligible entities to pick and choose applications that are pertinent to them (e.g., Internet1, Internet2, and videoconferencing);
- Implementation of a network operations center that offers a helpdesk, network diagnostics, and engineering assistance in order to ensure acceptable qualities of service;
- Establishment of a billing or accounting center to accept service orders, extend service agreements, provide consolidated billing, and to maintain customer accounts.

Benefits

Through aggregation of demand, adoption of common standards, and collaboration with network services and applications, participants can achieve many benefits, including:

- Lower network costs;
- Greater efficiency for participating entities;
- Interoperability of systems providing video courses and conferencing;
- Increased collaboration among all K-20 educational entities;
- New educational opportunities;
- Competitiveness with surrounding states; and
- Better use of public investments.

Action Plan

Current Action Items

1. Identify Tier II communities that offer opportunities for aggregation for services onto the network.

Action: The CAP will identify and work with communities that express an interest in aggregating their public sector transport.

Lead: Network Nebraska (CAP)

Participating Entities: Specific communities, NITC Community Council, Nebraska League of Municipalities, Nebraska Association of County Officials, public libraries, NITC Education Council

Timeframe: 2007

Funding: No funding required for this action item.

Status: Continuation

EC recommendation:

☐ *Continue as is, change the dates*

☐ *Revise the wording (provide comments)*

☐ *Discontinue*

☐ *Declare Action Item as complete or finished*

Comments:

Action: The CAP will write and release a brief that explains the technical feasibility of sharing public sector transport over high bandwidth, IP-based circuits in order to incentivize Tier II aggregation.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, NITC Community Council, ESU-NOC, Nebraska League of Municipalities, Nebraska Association of County Officials, public libraries

Timeframe: 2007

Funding: No funding required for this action item.

Status: Continuation

EC recommendation:

☐ *Continue as is, change the dates*

☐ *Revise the wording (provide comments)*

☐ *Discontinue*

☐ *Declare Action Item as complete or finished*

Comments:

2. The Chief Information Officer will continue the LB 1208 implementation by annually bidding infrastructure and connectivity for new regions of participants and developing the most cost-effective and efficient support structure possible for the statewide network.

Action: The Chief Information Officer's network design/support team will work with local and regional education entities to develop a cooperative support system for the statewide network that will mitigate data transport and synchronous video problems.

Lead: Chief Information Officer

Participating Entities: Network Nebraska (CAP)

Timeframe: 2007

Funding: No funding required for this action item.

Status: Continuation – Revised

EC recommendation:

☐ *Continue as is, change the dates*

☐ *Revise the wording (provide comments)*

☐ *Discontinue*

☐ *Declare Action Item as complete or finished*

Comments:

Action: The Chief Information Officer will annually update the State master purchase contracts for edge devices and codec equipment and monitor the local site purchases of edge device and codec equipment in order to achieve network equipment standardization.

Lead: Chief Information Officer

Participating Entities: Network Nebraska (CAP)

Timeframe: 2007

Funding: No funding required for this action item.

Status: Continuation (revised action previously listed under the Statewide Synchronous Video Network strategic initiative)

EC recommendation:

☐ *Continue as is, change the dates*

☐ *Revise the wording (provide comments)*

☐ *Discontinue*

☐ *Declare Action Item as complete or finished*

Comments:

3. Offer Internet I services to eligible network participants.

Action: The CAP will accept new orders for Internet service and continue to aggregate purchasing demand to secure a more economical price for statewide Internet service.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, NITC Community Council

Timeframe: 2007

Funding: No funding required for this action item.

Status: Continuation

EC recommendation:

_____ *Continue as is, change the dates*
_____ *Revise the wording (provide comments)*
_____ *Discontinue*
_____ *Declare Action Item as complete or finished*
Comments:

Future Action Items

1. Convene a work group to use high bandwidth flexible use circuits as community aggregation points and create a statewide, high bandwidth digital content delivery system using satellite, terrestrial and wireless technology.
2. Investigate the feasibility of offering advanced network services to Network Nebraska customers.

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:

Status:

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:

Status:

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:

Status:

NITC Strategic Initiative: Digital Education

Objective

- To promote the effective and efficient integration of technology into the instructional, learning, and administrative processes and to utilize technology to deliver enhanced digital educational opportunities to students at all levels throughout Nebraska on an equitable and affordable basis.

Description

This initiative will involve the coordination and promotion of several major systems and applications that heretofore have either been developed mostly at the local level or have not been replicated statewide.

The initiative will be dependent upon adequate Internet connectivity and transport bandwidth for learners, instructors, administrators, and for educational attendance sites. A minimum acceptable level of classroom technology will have to be established for the initiative to be successful.

The Digital Education Initiative will recognize that many standalone and disparate software applications are needing to undergo integration and convergence so that an instructor can: 1) research digital content, 2) construct a lesson or unit on a computer in a series of virtual or face-to-face or videoconferencing activities using rich multimedia, 3) assess the learners electronically, and then 4) move the student data to a database or data warehouse, 5) export relevant achievement and attendance data to a web-based student information system so parents, or the students themselves, can view it from home; 6) export data to a statewide student information system; and then finally 7) make “real-time” instructional decisions based upon the recently documented progress of the learners.

The primary components of the Digital Education Initiative would include:

- A statewide telecommunications network with ample bandwidth capable of transporting voice, video, and data between and among all education entities [see Network Nebraska];
- Distance insensitive Internet pricing for all Nebraska education entities;
- Development of a statewide eLearning environment so that every teacher and every learner has access to a web-based, digital curriculum;
- Development of a statewide digital resource library so that any teacher or learner will be able to retrieve digital media for use in instructional and student projects;
- Synchronous videoconferencing interconnections between all schools and colleges;
- The means to coordinate and facilitate essential education opportunities for all students through a statewide student information system; and
- Regional PreK-20 education cooperatives that vertically articulate educational programs and opportunities.

Benefits

Establishing a Digital Education Initiative is critical to Nebraska’s future. Internet has gone from a “nice to have” educational application of the 1990’s to the “must have” mission critical application of the 2000’s. So much of what teachers, students, and administrators do today is tied to Internet-based information and communication. Nebraska’s ranking of 6.5 students per

Internet-connected computer in the classroom seems to compare favorably with the U.S. average of 8.0 students per Internet-connected computer. (Technology Counts 2005 Report) However, it still makes it challenging for students to complete their digital assignments when they are expected to share six or seven students to a computer.

The benefits of the Digital Education Initiative would include:

- Greater technical capacity for schools and colleges to meet the increasing demands of a more diverse customer base;
- More equitable Internet access for Nebraska schools and colleges that is not dependent upon distance-sensitive pricing;
- A comprehensive Web-based approach to curriculum mapping and organization and automation of student assessment data gathering and depiction;
- The availability of rich, digital media to the desktop that is indexed to Nebraska standards, catalogued, and searchable by the educator or student;
- A more systematic approach to synchronous video distance learning that enables Nebraska schools and colleges to exchange more courses, staff development and training, and ad hoc learning opportunities.

Each of the components of the Digital Education Initiative are vital to future student success in Nebraska. The components are especially pertinent in that these applications and services provide the foundation for capacity building in our schools and colleges.

Action Plan

Current Action Items

1. Establish standard(s) related to the administration and maintenance of learning management systems and content management systems by K-12 schools.

Lead: NITC Technical Panel

Participating Entities: NITC Education Council, myeLearning.org, ESU Distance Education Council, UNL Independent Study High School

Timeframe: February 2007 – September 2007

Funding: No funding is required for this action item.

Status: Continuation. Required by LB 1208.

EC recommendation:

_____ *Continue as is, change the dates*

_____ *Revise the wording (provide comments)*

_____ *Discontinue*

_____ *Declare Action Item as complete or finished*

Comments:

2. Promote the availability, distribution, and use of digital media throughout the Nebraska educational community.

Lead: NITC Education Council

Participating Entities: NITC Education Council
Timeframe: March 2007 – December 2007
Funding: No funding is required for this action item.
Status: Continuation

EC recommendation:

- ☐ *Continue as is, change the dates*
- ☐ *Revise the wording (provide comments)*
- ☐ *Discontinue*
- ☐ *Declare Action Item as complete or finished*

Comments:

3. Develop an affordable plan to provide access to learning management system software for every teacher and learner who uses synchronous video distance learning and to also train teachers in effective instructional design to integrate synchronous and asynchronous technologies.

Lead: Distance Education Council
Participating Entities: Technical Panel's Learning Management System Standards Work Group, NITC Education Council, ESU Technology Affiliate Group
Timeframe: March 2007 – September 2007
Funding: No funding is required for this action item.
Status: New

EC recommendation:

- ☐ *Continue as is, change the dates*
- ☐ *Revise the wording (provide comments)*
- ☐ *Discontinue*
- ☐ *Declare Action Item as complete or finished*

Comments:

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:

Status:

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:
Status:

NEW Action Item (2008-2009)

Action:

Lead:

Participating Entities:

Timeframe:

Funding:

Status: